

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO |
|--------------------------|---------------|-----------------------|-------------------------|-----------------|
| 10/813,833 | 03/31/2004 | Zbyslaw R. Owczarczyk | 87786AEK | 6049 |
| 75 | 90 06/23/2006 | | EXAM | INER |
| Paul A. Leipold | | | GARRETT, DAWN L | |
| Patent Legal Sta | | | ADTIBUT | PAPER NUMBER |
| Eastman Kodak Company | | | ART UNIT | FAPER NUMBER |
| 343 State Street | | | 1774 | |
| Rochester, NY 14650-2201 | | | DATE MAILED: 06/23/2006 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|--|--|--|--|
| | Application No. | Applicant(s) | |
| 055 | 10/813,833 | OWCZARCZYK ET AL. | |
| Office Action Summary | Examiner | Art Unit | |
| | Dawn Garrett | 1774 | |
| The MAILING DATE of this communication app Period for Reply | ears on the cover sheet with the c | orrespondenc addr ss | |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 16(a). In no event, however, may a reply be tim rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI | L. sely filed the mailing date of this communication. O (35 U.S.C. § 133). | |
| Status | | | |
| Responsive to communication(s) filed on <u>31 Mar</u> This action is FINAL . 2b) ☑ This Since this application is in condition for allowant closed in accordance with the practice under E | action is non-final. ace except for formal matters, pro | | |
| Disposition of Claims | | | |
| 4) ☐ Claim(s) 1-42 is/are pending in the application. 4a) Of the above claim(s) is/are withdraw 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-42 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or | vn from consideration. | | |
| <u> </u> | | | |
| 9) ☐ The specification is objected to by the Examiner 10) ☑ The drawing(s) filed on 31 March 2004 is/are: a Applicant may not request that any objection to the o Replacement drawing sheet(s) including the correcti 11) ☐ The oath or declaration is objected to by the Ex | a) accepted or b) objected to drawing(s) be held in abeyance. See ion is required if the drawing(s) is obj | e 37 CFR 1.85(a). lected to. See 37 CFR 1.121(d). | |
| Priority under 35 U.S.C. § 119 | | | |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau * See the attached detailed Office action for a list of the certified copies of the certified copies of the prior application from the International Bureau | s have been received. s have been received in Applicati ity documents have been receive (PCT Rule 17.2(a)). | on No ed in this National Stage | |
| Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 8-18-05;3-31-04. | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other: | | |

Application/Control Number: 10/813,833 Page 2

Art Unit: 1774

DETAILED ACTION

Claim Rejections - 35 USC § 102/103

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

 (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 1, 4, 7-9, 12, 15-19, and 29-42 are rejected under 35 U.S.C. 102(a) as being anticipated by Hoag et al. (EP 1340798). Hoag et al. discloses organic electroluminescent devices comprising bis(azinyl)amine ligands with substituent groups, which may comprise an amine (see abstract). Inv-23 on page 7 shows a compound with a tertiary amine group. The inventive compounds are disclosed as emitting blue light per claim 4 (see Examples). Hoag et al. discloses as host materials 8-hydroxyquinoline compounds per claim 32 and anthracene compounds per claims 30 and 31 (see par. 44-51). The light emitting layers may comprise 1.0%

Art Unit: 1774

inventive compound (see Table III) per claim 34. Dopants may be added in order to achieve white light emission (see par. 56) per claim 36.

- 4. Claims 39-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Zhang et al. (US 5,869,689). Zhang et al. discloses boron-containing dyes according to formula 1 (see Tables).
- 5. Claims 39-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Boyer et al. (US 4,916,711). Boyer discloses a compound wherein R7 may be boron (see col. 5, line 30 to col. 6, line 24).

R1 may be C or N per formula (1) "Y". R6 and R8 may be N. R9-10 and R3-R5 may be carbon as well as other elements. R20 and R21 may be fluorine per claim 40. R16 and R19 may have arryl groups and may have amine groups per claim 39, 41, and 42.

6. Claims 1-29 and 32-42 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Karandikar (US 6,689,494). Karandikar discloses boron containing compounds, which may comprise amino groups as substituent groups in an organic electroluminescent device (see abstract). The boron compound dopants may be present in an amount of less than 2.5% (see col. 4, line 57). Karandikar is deemed to set forth the compounds of the claims. In the alternative that Karandikar is not considered sufficient to anticipate the claims requiring a boron-containing compound with an amine substituent group, it

Page 4

Art Unit: 1774

would have been obvious to one of ordinary skill in the art at the time of the invention to have selected substituent groups as required, because Karandikar generally teaches all of the required components. Quinoline compounds are described as host materials per claim 32 (see col. 4, line 58).

- 7. Claims 1, 4, 7-9, 12, 15-19, and 29-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Hoag et al. (US 6,661,023). The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. Hoag et al. discloses organic electroluminescent devices comprising bis(azinyl)amine ligands with substituent groups, which may comprise an amine (see abstract). Inv-23 shows a compound with a tertiary amine group. The inventive compounds are disclosed as emitting blue light per claim 4 (see Examples). Hoag et al. discloses as host materials 8-hydroxyquinoline compounds per claim 32 and anthracene compounds per claims 30 and 31 (see col. 17-18). The light emitting layers may comprise 1.0% inventive compound (see Table III) per claim 34. Dopants may be added in order to achieve white light emission (see col. 19, lines 1-4) per claim 36.
- 8. Claims 1-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Vargas et al. (US 2005/0170204). The applied reference has a common inventor with the instant application.

 Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing

Application/Control Number: 10/813,833 Page 5

Art Unit: 1774

under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. Vargas discloses bis(azinyl)methene boron complexes with substituent groups, which may be amine groups (see entire document).

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

- 10. Claims 1-42 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 and 10-59 of U.S. Patent No. 6,661,023.

 Although the conflicting claims are not identical, they are not patentably distinct from each other because the '023 compounds may generally have a substituent which may be an amine group.
- 11. Claims 1-42 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-47 of copending Application No. 10/768,327.

Art Unit: 1774

Although the conflicting claims are not identical, they are not patentably distinct from each other because the '327 compounds may have an amine group substituent.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. Claims 1-31 and 34-42 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 25, 44, 51, 53, and 54 of copending Application No. 10/889,654. Although the conflicting claims are not identical, they are not patentably distinct from each other because '654 discloses the same boron comprising compounds which may have an amine substituent group.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

13. Claims 1-9, 12, 19, 29-31, and 34-42 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5, 19, 20, and 26-30 of U.S. Patent No. 7,033,681. Although the conflicting claims are not identical, they are not patentably distinct from each other because '681 discloses a dopant according to the boron compounds of the instant claims.

Conclusion

- 14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- 15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571) 272-1523. The examiner can normally be reached Monday through Friday.

Application/Control Number: 10/813,833 Page 7

Art Unit: 1774

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dawn Garrett
Primary Examiner
Art Unit 1774

June 21, 2006